PugetSoundPartnership
our sound, our community, our chance

The Puget Sound Partnership Presents:
Draft Action Area Profiles

An important part of the Puget Sound Partnership's work is connecting with citizens, watershed groups and local governments. The legislation that created the Partnership established seven geographic action areas around the Sound to address and tackle problems specific to those areas.

Each of the seven action areas plays a unique role in sustaining the Puget Sound ecosystem. Distinct natural features and ecological process, urban and rural centers, wildlife populations, economics and history, and stressors on the environment characterize the different areas. In an effort to broadly describe the individual areas and ultimately develop tailored solutions to problems, the Partnership compiled information about each action area into an informative overview. The profiles are not meant to be detailed summaries of each action area; rather they are guided tours of what gives it a sense of place and the unique role in the ecosystem. The profiles will be refined to reflect the management actions needed to address threats in each area and be included in the Action Agenda.

The profiles are made up of three sections: the narrative, the action area map, and the action area concept diagram.

- Narrative
    - physical characteristics, demographics, land use, ecosystem characteristics and assets, and threats/stressors
- Action area map
    - base map for each action area, the incorporated and urban growth areas, public lands, tribal reservations, and major landmarks that are described in the text, and points of interest
- Action area concept diagram
    - graphic representation of the narrative related to ecosystem services and stressors

Please take some time to read through these action area profiles and familiarize yourself with an area you may or may not know much about. This is an opportunity to gain some insight and understanding as to how each action area is unique and why it needs attention.

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The Puget Sound Partnership Presents:
South Puget Sound Action Area Profile

Physical Description

South Puget Sound was carved by glaciers into a land of rolling hills and ridges, divided by nine long "fingers" of marine water. The South Sound basin contains four large islands, numerous small islands, and shallow inlets that go dry at extreme low tide. The extensive tidal forces are the major drivers of water circulation in South Sound, with maximum ranges of 20 feet. Many short streams and two major river systems (the Nisqually and the Deschutes) drain South Sound along approximately 450 miles of shoreline. South Sound is the farthest portion of Puget Sound from the cool waters entering from the ocean. An underwater sill at the Tacoma Narrows further impedes the exchange of water to the nine major inlets. The South Sound's shallow configuration and slow circulation make up a marine environment that is highly susceptible to low oxygen and warm temperatures.

Land Use, Population and Economy

South Puget Sound is the home of Olympia, the Washington State Capitol, and is one of the fastest growing areas in the state. Population growth in South Sound has consistently exceeded the state growth rate since the 1960s and is expected to grow by another 40% in the next 20 year period. South Puget Sound is also the home of two major military facilities—Fort Lewis and McChord Air Force Base. Fort Lewis in particular is experiencing high levels of growth, with an estimated current population of 29,000 active duty soldiers, plus families and civilian personnel. Most of the population in the South Sound Action Area is clustered along major transportation corridors and cities; outside of these urban areas the population is concentrated along the shorelines.

Historically, South Puget Sound was the home of the ancestors of the Nisqually, Squaxin Island and Puyallup Tribes, who were supported by rich shellfish resources, salmon, and wildlife in the upland forests. Timber and shellfish still form the basis of important economic sectors in South Sound. Recreational use of the shorelines for swimming, kayaking, canoeing, fishing, and beach combing is popular. As in other portions of Puget Sound, the flat river delta areas of South Sound were converted to agricultural farmland over a century ago, and agriculture remains a substantial land use in the Nisqually watershed.

South Puget Sound has a long-standing history of regional partnerships working to sustain and restore ecosystem health. Fort Lewis communicates regularly with local and tribal communities to discuss land use planning and environmental issues. The Nisqually Watershed Council has been operational for over two decades, and the Key Peninsula/Islands/Gig Harbor and Chambers/Clover Watershed Councils are also active. Public and private land managers, including timber companies with extensive holdings in the uplands, have worked on preservation and restoration of habitat to protect important upland and aquatic species.

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Unique Ecosystem Characteristics and Assets

The waters of South Puget Sound provide some of the finest shellfish habitat in the world. Commercial production of oysters, clams and mussels from these waters and tidelands contribute significantly to Washington's position as the nation's leading producer of farmed bivalve shellfish. South Puget Sound commercial shellfish harvest is estimated to generate approximately $50 million and is half of the state-wide shellfish industry revenue. Abundant personal and recreational shellfish harvest occurs in addition to the commercial harvest. Clean water is the essential catalyst for the continued success of the shellfish industry. South Sound is also an important feeding area for salmon and trout originating throughout Puget Sound and British Columbia. The Nisqually River has the largest undeveloped delta area in Puget Sound and is among the ten most important rivers in Puget Sound for salmon recovery. The Nisqually National Wildlife Refuge is a popular area for wildlife viewing. The Nisqually and Puyallup/White watersheds support threatened populations of Chinook, steelhead, and bull trout. These watersheds, along with the Deschutes and Kennedy-Goldsborough, support other unique populations of chum, pink and coho salmon, and coastal cutthroat trout. The South Puget Sound Action Area also includes portions of Mount Rainier National Park, and several state and local parks.

Unfortunately, the South Sound's configuration of shallow bays and inlets—while ideal for growing clams and oysters-- also make the region highly susceptible to water quality deterioration from the input of nutrients. These inputs come from a variety of sources including human and animal waste and stormwater runoff. The marine waters of South Sound do not circulate well and the nutrient input promotes the growth of microscopic plankton. This cycle of input, bloom and die-off consumes oxygen to levels that affect the health and survival of marine life.

Ecosystem Stressors

Historically, South Puget Sound was an important center for timber processing and paper production. The industrial use of the urban bays in Shelton, Chambers Bay and Olympia led to contamination of these inner bays with wood wastes and spent sulfite liquor from pulp and paper mills which closed between the late 1950s through the 1990s, as well as more concentrated contaminants such as creosote. The shallow bays limit the passage of commercial vessels leaving and entering the Port of Olympia and Oakland Bay at Shelton, and maintenance dredging of channels is necessary for larger vessels. Other major historical modifications to the environment in South Puget Sound include the creation of Capitol Lake in the heart of Olympia in the early 1950s, which was formed as a result of damming the Deschutes River, and the construction of the railroad line along the shoreline from Nisqually to Point Defiance in the early 1900s.

In addition to these historical changes, a number of threats to the ecological health of South Puget Sound have been identified by the residents of the action area and regional scientists. Many of these apply to the larger Puget Sound region, including climate change, population growth, stormwater/ wastewater discharge, emerging contaminants from pharmaceuticals and household products, loss of forest cover, and the fragmentation and loss of habitat function. Climate change models predict that sea level rise in the Puget Sound region will be the highest in South Sound, with an increase of three feet by the end of the century. Other specific threats to South Sound include the legacy contaminants in the sediments of Budd Inlet and Shelton Harbor, and the loss of estuary and nearshore habitat. Shoreline armoring and fill associated with bulkhead placement, ramps, overwater structures, and railroad maintenance are major ecosystem constraints in South Sound, as these activities eliminate or disrupt

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the habitat for forage fish, salmon, and other nearshore species. It is estimated that 55%, or 246 miles of shoreline has already been modified in South Puget Sound.

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South Puget Sound Action Area
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July 11, 2008

Cities (Incorporated Areas)
DuPont
Eatonville
Fircrest
Gig Harbor
Lacey
Lakewood
Olympia
Rainier
Roy
Shelton
Steilacoom
Tacoma
Tumwater
University Place
Yelm

Counties
Kitsap
Lewis
Mason
Pierce
Thurston

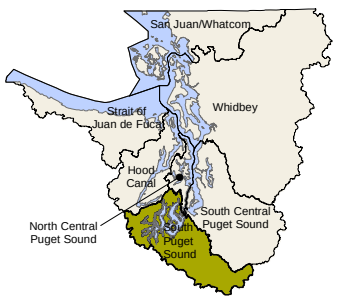
WRIAs
(11) Nisqually
(12) Chambers-Clover
(13) Deschutes
(14) Kennedy-Goldsborough
(15) Kitsap

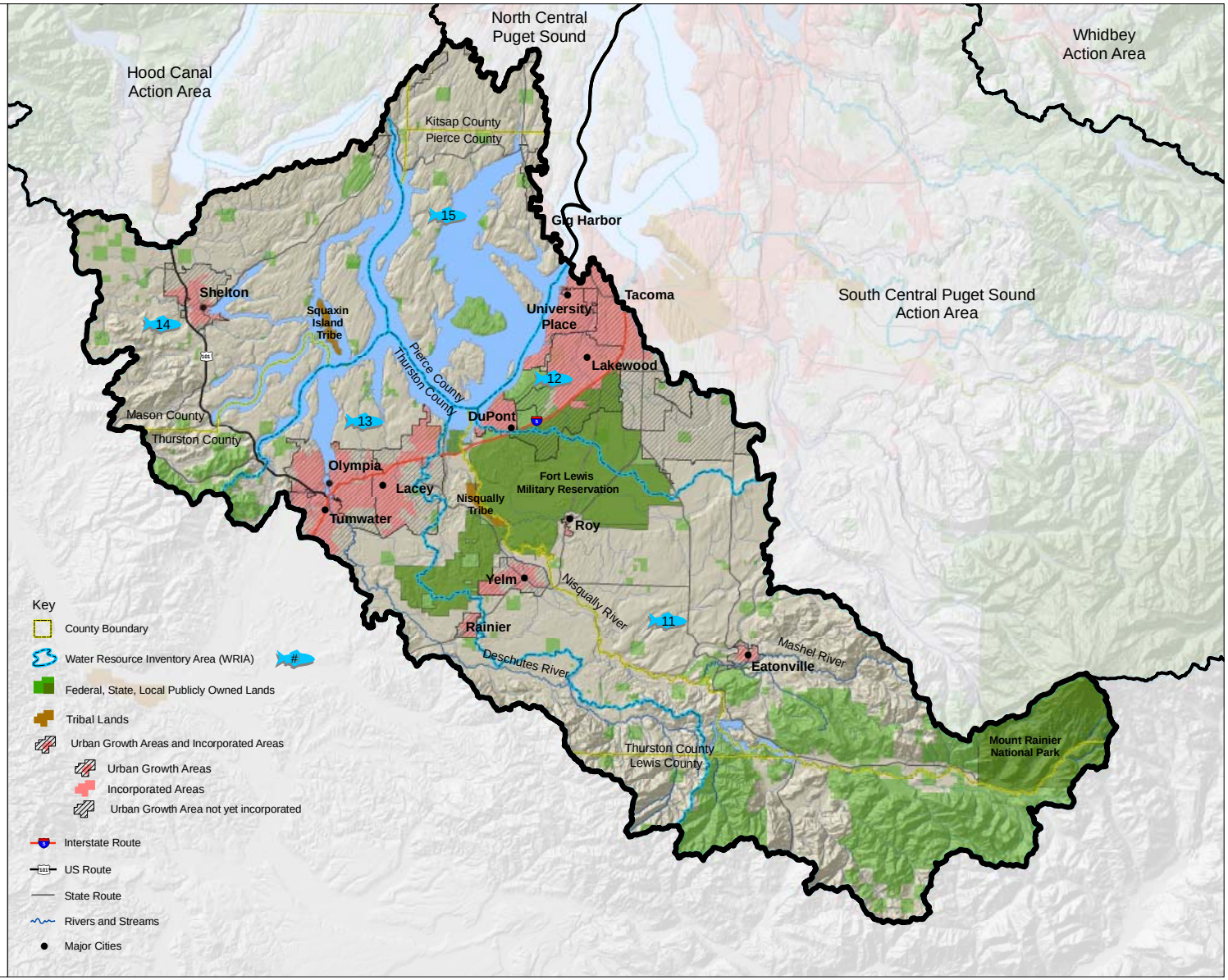
Tribal Lands
Nisqually Tribe
Squaxin Island Tribe

Places of Interest
Burfoot County Park
Camp Calvinwood
Charles L Pack Experimental Forest
Coulter Creek Hatchery
Deadmans Island State Park
Eagle Island State Park
Fort Lewis Military Reservation
Fort Steilacoom Park
Frye Cove County Park
Gifford Pinchot National Forest
Glacier View Wilderness
Haley State Park
Harstine Island State Park
Hope Island State Park
Jarrell Cover State Park
Jemma Beach State Park
Kopachuck State Park
Lake Isabella State Park
Lake Lawrence County Park
McMicken Island State Park
McNeil Island Wildlife Area
Mount Rainier National Park
Mt Baker Snoqualmie National Forest
Nisqually Mashel State Park
Nisqually National Wildlife Refuge
Northwest Trek Wildlife Park
Ohop Creek
Ohop Lake
Penrose Point State Park
Pioneer Park
Priest Point Park
Puyallup 40 Park
Rimrock County Park
Spanaway Park
Stretch Point State Park
Tatoosh Wilderness
Tolmie State Park

South Puget Sound

Puget Sound Action Areas





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